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The Influence of Wearing a fitbit on Eating Behaviors While Stressed

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By

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Abstract

Research has demonstrated stress leads to consuming foods of lower nutritional quality as well as a greater quantity of foods. Visual primes have been shown to reduce these detrimental eating behaviors. The present study sought to determine if a fitbit would prime healthy eating behaviors in stressful situations. Participants (N = 41) were randomly assigned to a high or low stress condition, manipulated through the Stroop Test, and were either given a fitbit prime or not. Participant's food preferences were assessed with the Macronutrient Preference Checklist-Modified for use in North America following the stress manipulation. The results generally did not support the hypothesis that participants with a fitbit prime would make healthier eating choices. The main effect of fitbit on total foods selected was marginally significant, such that participants who had the fitbit chose more foods than the participants not wearing a fitbit. Reasons for this unexpected trend as well as considerations for future studies are discussed.

Keywords: fitbit, visual prime, eating behaviors, stress, food preferences

The Influence of Wearing a fitbit on Eating Behaviors While Stressed

In the United States, obesity rates are reaching epidemic proportions with 37.7% of adults meeting the body mass index requirements for obesity and an additional 32.5% qualifying as overweight, (Overweight and Obesity Statistics, 2017). Both obesity and being overweight have been linked with numerous detrimental health consequences, including type two diabetes, cardiovascular diseases, cancer, and death (Hruby et al., 2016). Experts agree, one crucial prerequisite for preventing obesity in adults is identifying critical periods where individuals are likely to gain weight (Anderson, Shapiro, & Lundgren, 2003; Vella-Zarb & Elgar, 2016). College has been identified as a critical period of weight gain due to the magnitude of stress students face (Nelson, Lust, Story, & Ehlinger, 2008). Recently, studies have demonstrated stress eating is a significant contributing factor to obesity (Tsenkova, Boylan, & Ryff, 2013). Consequently, determining how to improve college students' eating behaviors in times of stress is of great importance. Studies have shown that a visual prime can serve as a reminder of health goals and result in better regulation of eating behavior in tempting situations (Papies & Hamstra, 2010). The present study sought to determine if a fitbit could serve as such a prime to improve college students eating behavior in stressful conditions.

Numerous studies have demonstrated that stress negatively affects eating behaviors. One detrimental eating behavior that is a consequence of stress is the choice of unhealthy foods. For instance, a study conducted by Zellner and colleagues (2006) investigated whether stress would alter an individual's food preference between grapes, peanuts, M&Ms, and potato chips. To induce stress, participants in the experimental condition were given unsolvable anagrams, while those in the control condition were given solvable ones. Participants in the experimental condition consumed significantly more M&Ms than the control group (Zellner et al., 2006). A

correlational study, also by Zellner and colleagues (2006), provided further support for these findings. Specifically, 83% of participants reported when stressed they chose to eat “junk” food they normally avoided (Zellner et al., 2006). Another study conducted by Cartwright and colleagues also found that individuals with higher levels of stress were more likely to choose unhealthy foods (Cartwright et al., 2003). Ultimately, higher stress levels were associated with more frequent fatty food consumption as well as less fruit and vegetable intake.

In addition to influencing individuals to choose unhealthy foods, studies have shown stress alters the quantity of food individuals consume. For instance, Conner, Fitter, and Fletcher (1999) asked college students to report the severity and number of daily stressors they experienced in one week. Concurrently, they recorded the number of snacks they consumed. Researchers found a significant positive relationship between the number of stressful events experienced and number of snacks consumed. Wichianson, Bughi, Unger, Spruijt-Metz, and Nguyen-Rodriquez (2009) also found a relationship between stress and food consumption. Their study specifically focused on night time eating in college students and found students with higher levels of stress ate significantly more food at night (Wichianson et al., 2009).

Furthermore, in addition to having immediate consequences, such as influencing individuals to choose unhealthy foods and overeat, stress eating has been linked to long term changes in health. For instance, Hootman, Guertin, and Cassano (2018) used a variety of measures to determine students eating behaviors in times of stress prior to entering their freshman year of college. Upon of completion of their freshman year of college, males who’s scores indicated they had unhealthy eating habits during stress gained significantly more weight (Hootman et al., 2018). Similarly, Tsenkova, Boylan, and Ryff (2013) investigated the long term implications of stress eating. Utilizing self-report measures of stress eating behaviors, Tsenkova,

Boylan, and Ryff (2013) measured the relationship between these behaviors and glucose levels and insulin resistance. The researchers found higher levels of stress eating were associated with significantly higher levels of glucose and insulin resistance (Tsenkova et al., 2013).

Recent research investigating interventions to improve eating behaviors has focused on goal priming. Goal priming is using external cues in the environment to direct goal related behaviors and cognitions (Papies, 2016). Papies and Hamstra (2010) investigated how a dieting prime influenced the number of meatballs participants consumed. A poster, serving as the dieting prime, was placed outside of a grocery store which had a diet recipe that was low in calories. Participants who entered the store when the poster was visible and were restrained eaters, or frequently attempt to diet, consumed less of the snack than those who had no prime present when they entered the store (Papies & Hamstra, 2010). Price, Higgs, and Lees (2016) also investigated the use of primes on snack intake. Participants were all told they would be taking part in a taste test. Participants assigned to the control condition did not have a prime present while those in the experimental condition did. Like Papies and Hamstra (2010), Price et al. (2016) found that participants ate lower quantities of food in the presence of the prime. However, one differentiating factor between the two studies is that the study by Price et al. (2016) found the prime significantly reduced the quantity of food consumption even in non-restrained eaters.

Recently there has been a surge in the number of individuals using wearable fitness devices, with fitbits being the most popular (Marley, 2018). Research has shown simply wearing a fitbit may prime physical activity (Farnell & Barkley, 2017). Given that the fitbit can prime health conscious behavior such as exercise, the present study investigated whether a fitbit could serve as a prime to influence a participant's eating behaviors while under stress. Specifically,

utilizing the Stroop Test to induce stress, participants' food preferences and the amount of candy they took was measured. The hypotheses were as follows:

Hypothesis 1: Participants in the high-stress group without the fitbit prime, group 1, would select significantly more foods overall on the Brisbois-Clarkson and colleagues 2009 Macronutrient Preference Checklist- Modified for use in North America (MPC), as well as select significantly more foods in the high fat, low energy, and high carbohydrate categories than participants in the high-stress condition with the fitbit prime, group 2.

Hypothesis 2: Participants in group 1 would take significantly more candy than participants in group 2.

Hypothesis 3: Participants in the high-stress conditions, groups 1 and 2 would select significantly more foods overall on the MPC, as well as select significantly more foods in the high fat, low energy, and high carbohydrate categories than participants in the low-stress conditions, groups 3 and 4.

Hypothesis 4: Participants in groups 1 and 2 would choose significantly more candy than those in groups 3 and 4.

Method

Participants

Forty-one participants were recruited for the study online using SONA systems. SONA systems is an experimental management software where participants can select both the study and the time slot they wish to participate in. Participants were only excluded from the study if they were under 18 years of age as they would have required parental permission. Participants were not compensated financially, however they received one research credit for their introductory psychology course. The average age of the participants was 19.95 years, *SD* =

2.202. Of the 41 participants, 35 were women and 6 were men. The racial composition of the participants was as follows; 32 White/Caucasian, one Asian, eight Black/African American, one Hispanic/Latino/Latina. Participants were treated in accordance with the American Psychological Association (APA) guidelines (American Psychological Association, 2002).

Materials

The researcher utilized a fitbit flex to serve as the visual prime for participants. Additionally, fun sized packets of M&Ms and Skittles served as the candy available to participants. Measures given included the following listed below:

Demographic Questionnaire. Participants reported their age, major, sex, gender, and if they had any allergies or dietary restrictions (see Appendix A). The purpose of inquiring about allergies or dietary restrictions was to determine if those conditions would influence the foods selected on the Macronutrient Preference Checklist- Modified for use in North America or the amount of candy the participants selected.

Stress. Participants rated their current level of stress both pre and post-test on a Likert scale of 1-7 (see Appendices B and C). This was a single question measure.

Macronutrient Preference Checklist- Modified for use in North America (MPC). The MPC was utilized to measure participants desire to eat a variety of foods in four groups. Specifically, high carbohydrate, high fat, high protein, and low energy. There are eight foods in each of the four groups and participants were instructed to place a checkmark by each food they wanted to eat at the present moment. Each of the four groups was scored on a scale of 0-8 based on how many foods they selected in each category. The modified version of the MPC was shown to be a valid measure with good concurrent validity and reliability (see Appendix D) (Brisbois-Clarkson, McIsaac, Goonewardene, & Wismer, 2009).

Entertainment-Preference Measure. In the Entertainment-Preference Measure, participants rated how much they enjoy certain genres of music books, movies, and television shows on a Likert scale (Rentfrow, Goldberg, & Zilca, 2011). Only the first two sections of The Entertainment-Preference Measure, music and books and magazines will be measured. The Entertainment-Preference Measure served as a mask measure to conceal the true nature of the study. Data was not collected (see Appendix E).

Number of M&Ms or Skittles packets taken. The number of M&Ms and/or Skittles packets taken was recorded.

Design A 2x2 factorial design was used.

	High-stress	**Low-stress**
Not Wearing a fitbit	Group 1	Group 3
Wearing a fitbit	Group 2	Group 4

Procedure

Participants were instructed to wait in the waiting area of the psychology research laboratory. Upon entering the room, participants completed an informed consent (see Appendix F) and were told they would be taking part in a study investigating the effects of the Stroop Test on certain preferences. Participants were randomly assigned to one of the four experimental conditions illustrated in the table above. All participants, regardless of the experimental condition, were given a measure of general demographic information that also included an open response question where they could indicate if they had any dietary restrictions or allergies. Additionally, participants were given a sheet where they rated their current level of stress on a Likert scale from one to seven, seven being extremely stressed. After completing the demographic information, participants either had the fitbit placed on their wrist or not. If the

fitbit was placed on their wrist, participants were told that they would be wearing a fitbit to measure physiological responses throughout the experiment. Next, all participants completed the Stroop Test. If the participant was in the high-stress condition, they were told the test would be timed and that their scores would be recorded. If the participant was in the low-stress condition, they were told the task would be untimed and unscored.

After completion of the Stroop Test, participants again rated their stress using the same Likert scale. Participants then completed the MPC. As stated previously, participants were also given the Entertainment-Preference Measure as a mask measure to hide the true nature of the study. Finally, before participants left, they were offered a bowl of candy as a thank you for participating with the verbal instruction "take as much as you want as a thank you for your participation." The amount of candy they took was recorded. After participants had the opportunity to take candy, they were read the debriefing statement (see Appendix G).

Results

Utilizing an independent one tailed *t*-test, a manipulation check was conducted to determine whether there was a mean difference in self-report post Stroop Test stress scores between the high-stress and low-stress conditions. Groups 1 and 2 made up the stress condition while groups 3 and 4 made up the non-stress conditions. The post Stroop Test self-report scores on stress were not significantly different between the high-stress and low-stress groups, $t(39) = .011$, $p = .992$, ($Ms = 3.9, 3.9$) ($SDs = 1.518, 1.338$), respectively. See Figure 1 for results.

A 2 (fitbit: present or absent) x 2 (Stress: high-stress or low-stress) factorial analysis of variance (ANOVA) was used to analyze the total number of foods selected on the MPC. The main effect for fitbit was marginally significant, $F(1, 37) = 3.583$, $p = .066$, $\eta p^2 = .088$. Participants who had the fitbit chose slightly more foods ($M = 11.70$, $SD = 7.02$) than the

participants not wearing a fitbit (M = 8.05, SD = 5.05). The main effect for stress was not significant, F (1, 37) = .422, p = .520. The high-stress condition (M = 10.50, SD = 7.323) and the low-stress condition (M = 9.19, SD = 5.221) selected a similar number of foods. The interaction effect was not significant, F (1, 37) = .486 p = .490. See Figure 2 for results.

A 2 (fitbit: present or absent) x 2 (Stress: high-stress or low-stress) factorial analysis of variance (ANOVA) was used to analyze the number of high carbohydrate foods selected on the MPC. The main effect for the fitbit condition was not significant, F (1, 37) = 2.632, p = .113. Participants wearing a fitbit (M = 3.05, SD = 1.932) and participants not wearing a fitbit (M = 2.10, SD = 1.814) selected a similar number of high carbohydrate foods. The main effect for the stress condition was not significant, F (1, 37) = .076, p = .784. Participants in the high-stress condition (M = 2.65, SD = 2.007) and low-stress condition (M = 2.48, SD = 1.861) selected a similar number of high carbohydrate foods. The interaction effect was not significant, F (1, 37) = .815 p = .372. See Figure 3 for results.

A 2 (fitbit: present or absent) x 2 (Stress: high-stress or low-stress) factorial analysis of variance (ANOVA) was used to analyze number of low energy foods selected on the MPC. The main effect for the fitbit condition was not significant, F (1, 37) = 2.299, p = .136. Participants in the fitbit condition (M = 2.95, SD = 1.572) selected a similar number of low energy foods as those without the fitbit (M = 2.19, SD = 1.806). The main effect for the stress condition was not significant, F (1, 37) = 1.363, p = .250. Participants in the high-stress condition (M = 2.25, SD = 1.773) selected a similar number of low energy foods as participants in the low-stress condition (M = 2.86, SD = 1.652). The interaction effect was not significant, F (1, 37) = 1.848 p = .182. See Figure 4 for results.

A 2 (fitbit: present or absent) x 2 (Stress: high-stress or low-stress) factorial analysis of variance (ANOVA) was used to analyze the number of high fat foods selected on the MPC. The main effect for the fitbit condition was not significant, F (1, 37) = 1.288, p = .264. Participants in the fitbit condition (M = 2.90, SD = 2.511) selected a similar number of high fat foods as participants without the fitbit (M = 2.10, SD = 1.947). The main effect for stress yielded an F ratio of, F (1, 37) = 4.705, p = .037, ηp^2 = .113, indicating those in the high-stress group chose significantly more high fat foods (M = 3.25, SD = 2.552) than those in the low-stress group (M = 1.76, SD = 1.670). The interaction effect was not significant, F (1, 37) = .010 p = .920. See Figure 5 for results.

A 2 (fitbit: present or absent) x 2 (Stress: high-stress or low-stress) factorial analysis of variance (ANOVA) was used to analyze the number of candy packets taken. The main effect for the fitbit condition was not significant F (1, 37) = .466, p = .499. Participants in the fitbit condition (M = 1.05, SD = .394) did take a significantly different amount of candy than participants without the fitbit (M = 1.14, SD = .394). The main effect for the stress condition was not significant, F (1, 37) = .001, p = .974. Participants in the high-stress group (M = 1.10, SD = .553) did not take a significantly different amount of candy than participants in the low-stress group (M = 1.10, SD = .301). The interaction effect was not significant, F (1, 37) = .559 p = .460. See Figure 6 for results.

Discussion

Research has demonstrated stress adversely affects eating behaviors (Tsenkova et al., 2013; Hootman et al., 2018; Zellner et al., 2006). Namely, individuals experiencing stress eat greater quantities of food and are more likely to make unhealthy eating choices (Cartwright et al., 2003; O'Connor & O'Connor, 2004; Wichianson et al., 2009; Zellner et al., 2006). Goal

priming has been shown to reduce these detrimental eating behaviors (Papies & Hamstra, 2010; Price et al., 2016). The aim of the present study was to determine whether a fitbit could serve as a visual prime to improve healthy eating behaviors in times of stress. Hypotheses were formed based on this previous research, however, they were largely unsupported.

The first hypothesis, that participants in the high-stress group without the fitbit prime, (group 1), would select significantly more foods overall on the MPC, as well as select significantly more foods in the high fat, low energy, and high carbohydrate categories than participants in the high-stress condition with the fitbit prime (group 2), was not supported. In fact, while the results were not significant, the data trended in the opposite direction. Specifically, participants in the high-stress group wearing the fitbit selected more total foods, more high carbohydrate foods, more high fat foods, and more low energy foods. One possible explanation for this trend in the data is that instead of priming healthy behavior, the fitbit primed thoughts of activity which increased feelings of hunger, and led participants to select more foods.

The second hypothesis was that participants in the high-stress group without the fitbit would take significantly more candy than participants in the high-stress group with the fitbit. This hypothesis was also not supported. The vast majority of participants, 33, only took one piece of candy. Participants may have only taken one piece in an effort to be polite. Furthermore, participants may have been uncomfortable taking more than one piece as the researcher was in the room. Future studies should have the researcher leave the room when participants have the opportunity to take candy. Additionally, as the candy was already in a prepackaged bag, participants may have assumed they were only supposed to take one piece, despite the verbal instructions to take as much as they would like.

The third hypothesis was that participants in the high-stress conditions, groups 1 and 2 would select significantly more foods overall on the MPC, as well as select significantly more foods in the high fat, low energy, and high carbohydrate categories than participants in the low-stress conditions, group 3 and group 4. This hypothesis was largely not supported with one exception. Specifically, participants in the high-stress conditions did not choose significantly more foods overall, in the high carbohydrate, or in the low energy categories than participants in the low-stress conditions. However, participants in the high-stress conditions did choose significantly more high fat foods than participants in the low-stress conditions.

The final hypothesis was that participants in the high-stress conditions would take significantly more candy packets than those in the low-stress conditions. This hypothesis was not supported. Possible explanations are explained above.

One of the main limitations was the manipulation check which demonstrated that self-report scores on stress did not significantly differ between the high and low-stress groups. One possible explanation for the failed manipulation effect is the social desirability response bias. The social desirability response bias occurs when an individual responds in a way they think the researcher wants. Research has demonstrated the social desirability response bias plays a role in self-report measures of stress (Logan, Claar, & Scharff, 2008). Participants may have reported lower levels of stress following the Stroop Test to avoid embarrassment.

Another possible explanation for the failed manipulation effect is that all students at Coastal Carolina University experienced a stressful life event prior to the collection of data. Hurricane Florence struck the east coast, which caused students to experience a variety of adverse events. Some students experienced property damage, flooding, supply shortages, and power outages. All students were required to evacuate campus and were not allowed to return to classes

for three weeks. Obviously, this disruption was an extremely stressful time for students of Coastal Carolina University, who made up the participant pool. After experiencing a stressful event of this magnitude, it is plausible the Stroop Test lost some of its effectiveness.

In addition to the failed manipulation check and Hurricane Florence, several other limitations may account for the lack of significant data. For instance, the study did not take place in a natural setting. This may have led participants to select different food than they would in their day to day life. Another limitation to consider is the possible confound of the time the participants last consumed food. This may have influenced scores on the MPC and the amount of candy they took. To obtain the greatest amount of participants possible, this study was offered at a variety of times. Unfortunately, this resulted in some participants coming at times where they had not eaten for a long time. Conversely, participants may have consumed food immediately prior to the study. Their current level of hunger may have influenced their selections on the MPC and the amount of candy they chose to take. Though participants could have been asked to fast prior to the study to avoid this conflict, this likely would have resulted in fewer participants agreeing to partake in the study.

Future studies should seek to address and overcome these limitations. The greatest limitation of the present study is the failed manipulation of stress. Due to the failed manipulation of stress, it is difficult to ascertain whether a fitbit does serve as a prime to influence eating behaviors in stressful conditions. Future studies should use a more reliable means of inducing stress to ensure that the independent variable is indeed manipulated. Additionally, given that the present study only had participants wear the fitbit for approximately 15 minutes, future studies should focus on the long term effects of wearing a fitbit on eating behaviors. Finally, future studies

should require a fast before participation in order to reduce the potential confound of the time the participants last consumed food.

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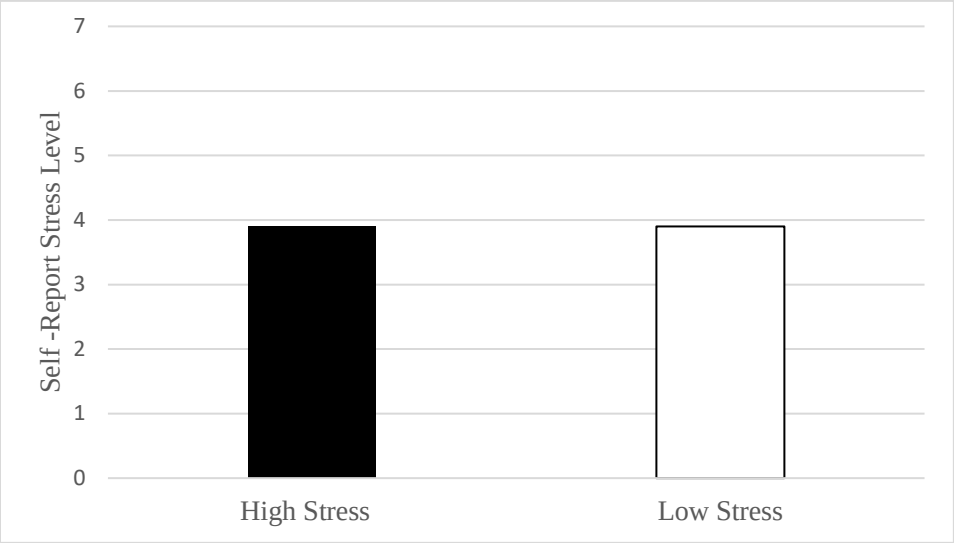


Figure 1. Mean rating of current stress level on a scale of one to seven after completing the Stroop Test in the high-stress and low-stress conditions.

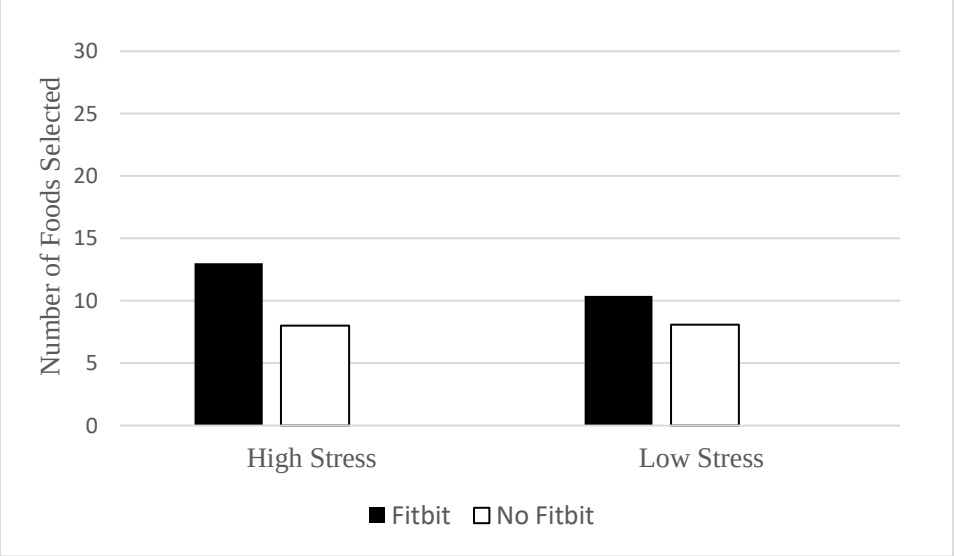


Figure 2. Mean number of total foods selected on the Macronutrient Preference Checklist-Modified for Use in North America in the high and low-stress conditions by presence of a fitbit.

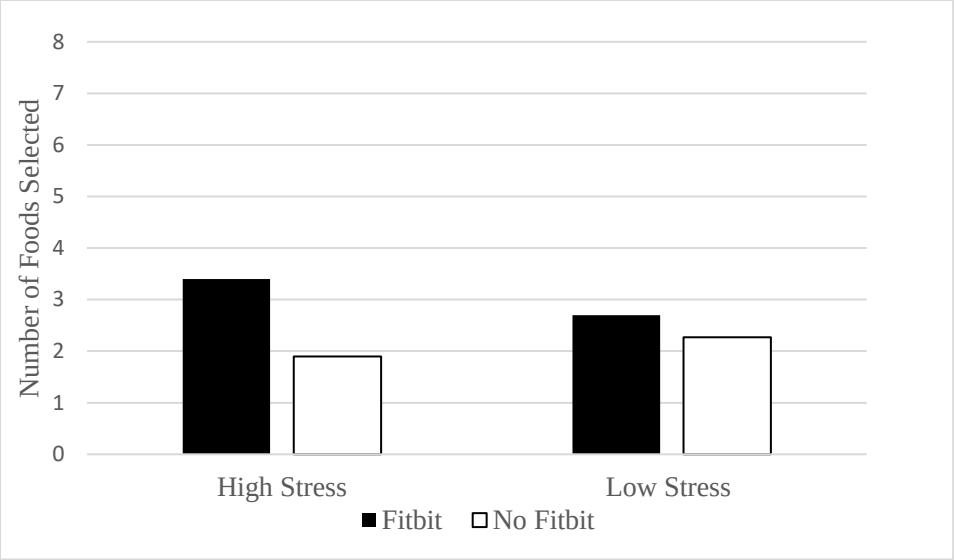


Figure 3. Mean number of high carbohydrate foods selected on the Macronutrient Preference Checklist- Modified for Use in North America in the high and low-stress conditions by presence of a fitbit.

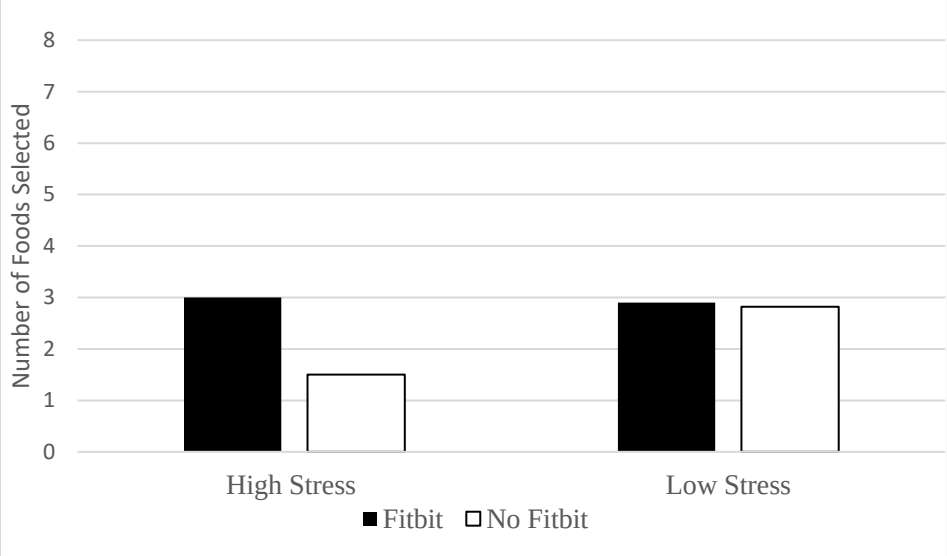


Figure 4. Mean number of low energy selected on the Macronutrient Preference Checklist-Modified for Use in North America in the high and low-stress conditions by presence of a fitbit.

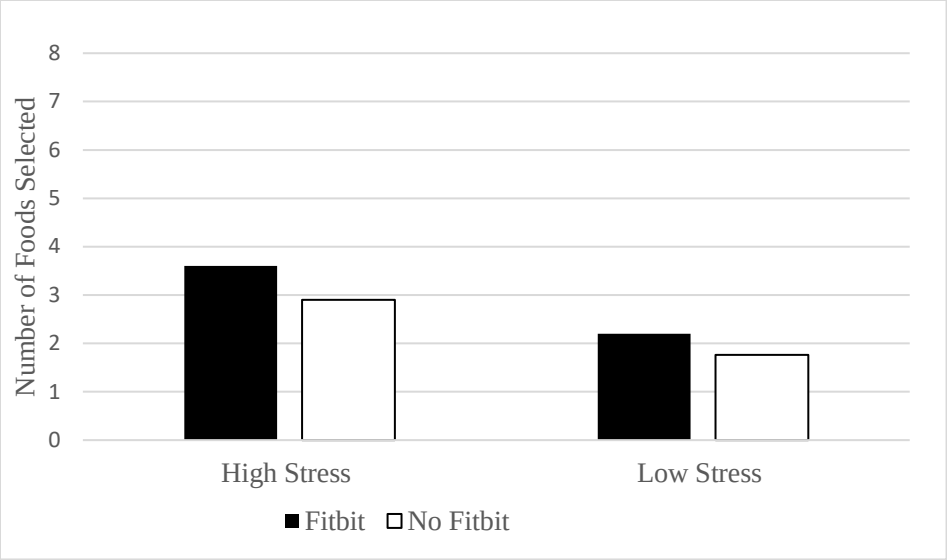


Figure 5. Mean number of high fat selected on the Macronutrient Preference Checklist- Modified for Use in North America in the high and low-stress conditions by presence of a fitbit.

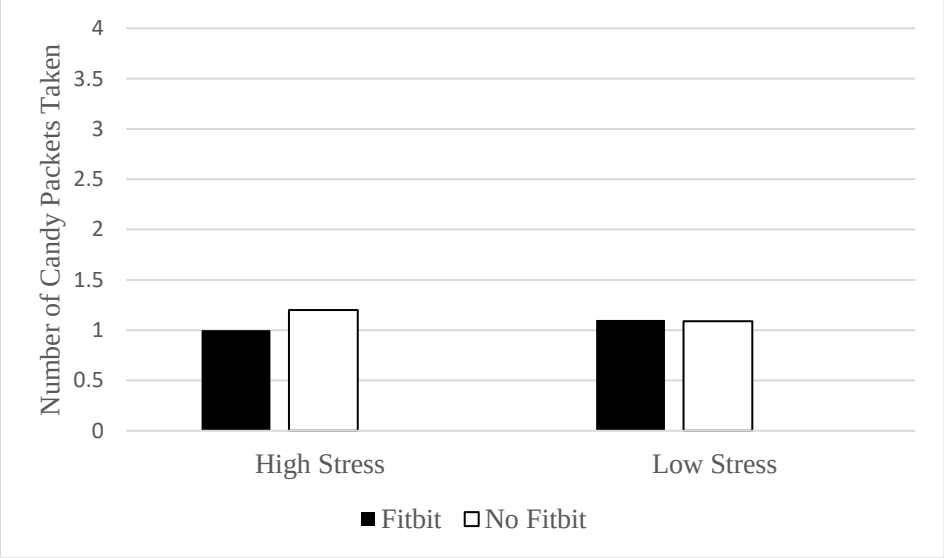


Figure 6. Mean number of packets of candy taken in the high and low-stress conditions by presence of a fitbit.

Appendix A

Demographic Information

1. **Sex:**

○ Male ○ Female ○ Prefer not to say

2. **Age**

[ ]

3. **Race/ Ethnicity**

○ American Indian or Alaskan Native ○ Asian ○ Black/African American

○ Native Hawaiian or other Pacific Islander ○ Hispanic/Latino/Latina ○ White

○ Prefer not to say ○ Other [ ]

4. **Major**

[ ]

5. **Class Rank**

○ Freshman ○ Sophomore ○ Junior ○ Senior

6. **Any allergies or dietary restrictions (please specify)**

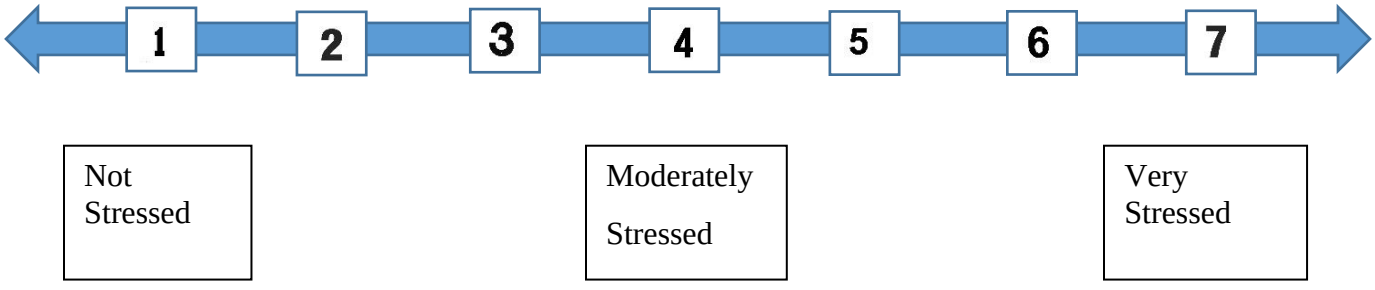
[ ]

7. **Do you have any medical conditions that prevent you from eating certain foods (please specify)**

[ ]

Appendix B

Current Level of Stress Pre-Test



Appendix C

Current Level of Stress Post-Test

Not Stressed	Moderately Stressed	Very Stressed

Appendix D

Macronutrient Preference Checklist-Modified For Use in North America

Please place a check by all items you would like to eat **at this moment**

2 pieces of raisin bread with butter or margarine	4 Small Cookies	A small piece of pie	A dish of canned fruit in syrup
A baked potato	2 dinner rolls	A medium sized dish of baked beans	A medium sized bowl of fried rice
A milk chocolate bar	A small piece of cheesecake	¾ cup of ice cream	2 small brownies
2 fried eggs	A hamburger	A small bag of potato chips	2 slices of cheddar cheese
A roasted chicken breast	A grilled cod fillet	A grilled pork chop	2 slices of roast beef lunchmeat
2/3 cup of canned tuna	A slice of baked ham	2 slices of turkey breast meat	A steak
A medium sized peach	A dish of strawberries	A carton of fat-free flavored yogurt	A small slice of honeydew melon
2 average sized tomatoes	A mixed greens salad	2 pickles	2 sticks of celery

Appendix E

Entertainment Preference Measure

MPM

Below are list of different media and entertainment genres. Please indicate the extent to which you like each of the genres within each domain using the scale provided below.

0	1----------2----------3----------4----------5----------6----------7	
Don't know it	Dislike very much	Neither like nor dislike	Like very much

MUSIC

1. _____ Alternative
2. _____ Bluegrass
3. _____ Blues
4. _____ Classical
5. _____ Country
6. _____ Dance/Electronica
7. _____ Folk
8. _____ Funk
9. _____ Gospel
10. _____ Heavy Metal
11. _____ International/Foreign
12. _____ Jazz
13. _____ New Age
14. _____ Oldies
15. _____ Opera
16. _____ Pop
17. _____ Punk
18. _____ Rap
19. _____ Reggae
20. _____ Religious
21. _____ Rock
22. _____ Soul/R&B
23. _____ Soundtracks/theme songs

BOOKS AND MAGAZINES

1. _____ Academic
2. _____ Action
3. _____ Adventure
4. _____ Africana
5. _____ Architecture
6. _____ Art
7. _____ Biographies
8. _____ Business
9. _____ Computers
10. _____ Cooking
11. _____ Entertainment
12. _____ Erotica
13. _____ Fiction and Literature
14. _____ Gay and Lesbian
15. _____ Health
16. _____ History
17. _____ Home and Garden
18. _____ Horror
19. _____ Medical books
20. _____ Mind and Spirit
21. _____ Mystery
22. _____ News/Current Events
23. _____ Nonfiction
24. _____ Philosophy
25. _____ Photography
26. _____ Poetry
27. _____ Psychology
28. _____ Reference
29. _____ Religion
30. _____ Romance
31. _____ Science and Nature
32. _____ Sci-Fi and Fantasy
33. _____ Sports
34. _____ Thrillers and Espionage
35. _____ Travel

Appendix F

Informed Consent Form

I, _____, agree to participate in the research entitled *"The Influence of the Stroop Test on College Preferences"* conducted by **Maria Sparacino** (CCU student, Email: mcsparaci@coastal.edu) under the supervision of **Dr. Terry Pettijohn,** Department of Psychology, Coastal Carolina University, P.O. Box 261954, Conway, South Carolina, 29528-6054, Phone: 843-349-6447, Email: pettijohn@coastal.edu. I understand that this participation is entirely voluntary. I may withdraw my consent at any time without penalty and have the results of my participation returned to me, removed from the research records, or destroyed.

The following points have been explained to me:

1-The purpose of this research is to determine the role of the Stroop Test plays on college preferences. The Stroop Test requires me to read words in various colored inks and name the color ink the word is written in. My participation in this study will further my understanding of the processes and purposes of psychological research.

2-I will be completing the Stroop Test and answering questionnaires regarding entertainment and food preferences. The entire experiment is expected to last less than 30 minutes. You will not be paid for your participation in this study. However, you can earn 1 research credits for participation. In order to make this study valid, some information may be withheld until after the study.

3-No psychological or physical discomforts or stresses are foreseen. Minor psychological stress may be experienced when completing the Stroop Test. If at any point the task is too distressing please discontinue your study participation.

4-No social or legal risks are foreseen.

5-Participation will be confidential and the results will not be released in any identifiable manner. Confidentiality will only be violated when required by law or the ethical guidelines of the American Psychological Association.

6-The investigator will answer any further questions, regarding the research, now or during the course of the project.

_____ _____

Signature of Investigator Signature of Participant Date

PLEASE SIGN BOTH COPIES OF THIS FORM.
KEEP ONE AND RETURN THE OTHER TO THE INVESTIGATOR.

Research at Coastal Carolina University which involves human participants is overseen by the Institutional Review Board. Questions or problems regarding your rights as a participant should be addressed to the Coastal Carolina University Institutional Review Board at 843-349-2978 (days), through email at OSPRS@coastal.edu, or at Coastal Carolina University, Office of Sponsored Programs and Research Services, IRB Administrator, PO Box 261954, Conway, SC 29528-6054

Appendix G

Debriefing

In this study, we were interested in the influence of stress on eating behaviors. Specifically, we were interested in whether students under stress would be more likely to make unhealthy eating choices. We predicted that the more stressed a student was the more likely they were to choose to eat foods high in fat, high in sugar, and low in energy.

The Stroop Test was designed to simulate the cognitive stress college students frequently experience. The questions regarding entertainment measures were intended to disguise the true nature of the study.

Thank you for your participation and please do not discuss this study with other students. If you want to learn more about my results, please attend one of my research presentations at the end of the semester or contact me by email.